THIS PROJECT INVOLVES THE INSTALLATION OF APS/CPS OF THE EXISTING TRAFFIC SIGNAL AND THE RECONSTRUCTION OF THE ADA RAMPS AT THE INTERSECTION OF MD 193 AND CUNNINGHAM DR IN PRINCE GEORGE'S COUNTY MD 193 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

II. INTERSECTION OPERATION

THE INTERSECTION OPERATES IN A NEMA SIX-PHASE, FULLY-TRAFFIC-ACTUATED MODE. THERE IS EXCLUSIVE/PERMISSIVE LEFT TURN PHASING FOR BOTH THE EAST AND WEST APPROACHES OF MD 193. MD 193 THROUGH MOVEMENTS WILL OPERATE CONCURRENTLY AND CUNNINGHAM DR THROUGH MOVEMENTS WILL ALSO RUN CONCURRENTLY. THERE ARE PEDESTRIAN INDICATIONS FOR THE SOUTH LEG OF THE INTERSECTION AND THERE IS AN ALTERNATE PEDESTRIAN PHASE FOR THE WEST LEG OF THE INTERSECTION.

EQUIPMENT LIST FOR CONTRACT NO. PG8925177

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION

CATEGORY	QUANTITY	UNIT	DESCRIPTION
9104	1	EA	SIZE 'S' CABINET WITH CONTROLLER AND VIDEO INT. EQUIPMENT: 1-8 CAMERAS
9118	2	EA	4 CHANNEL DETECTOR AMPLIFIER

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR

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CATEGORY	QUANTITY	UNIT	DESCRIPTION
201032	4	CY	CLASS 2 EXCAVATION
203030	4	CY	TEST PIT EXCAVATION
585412	365	LF	12 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
585424	50	LF	24 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
634300	205	LF	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DE
655105	735	SF	5 INCH CONCRETE SIDEWALK
655120	80	SF	DETECTABLE WARNING SURFACE FOR CURB RAMPS
800000	4	EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION
800000	4	EA	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD
800000	1	EA	REMOVE & DISPOSE OF EQUIPMENT (PER ASSIGNMENT)
800000	1	EA	2-WIRE CENTRAL CONTROL UNIT
. 800000	12	EA	8 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
801004	2	CY	CONCRETE FOR SIGNAL FOUNDATION
801104	20	LF	WOOD SIGN SUPPORTS 4 INCH X 4 INCH
801106	31	LF	WOOD SIGN SUPPORTS 4 INCH X 6 INCH
801605	25	SF	SHEET ALUMINUM SIGNS
	4	EA	R10-3(1) (9"x 15") POLE MOUNTED
	2	EA	OM1-3 (18"x 18") GROUND MOUNTED
	2	EA	W11-2 (30"x 30") GROUND MOUNTED
	1	EA	W16-7p(L) (24" x 12") GROUND MOUNTED
	1	EA	W16-7p(R) (24" x 12") GROUND MOUNTED
802501	85	LF	NO 6 AWG STRANDED BARE COPPER GROUND WIRE
802570	185	LF	1 CONDUCTOR #2/0 AWG CABLE
805115	175	LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-BORED
805125	60	<u>L</u> F	2 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805135	115	L F	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805140	70	ŁF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
807500	1	EA	EMBEDDED METERED SERVICE PEDESTAL
810022	15	LF :	ELECTRICAL CABLE 1-CONDUCTOR NO. 8 AWG-THHN/THWN
810605	6	EA	NONINVASIVE DETECTOR, 1000 FOOT LEAD IN CABLE
811001	5	EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
816001	4	EA	VIDEO DETECTION CAMERA
818004	4	ĒΑ	10 FOOT BREAKAWAY PEDESTAL POLE
822002	1200	ĹF	12-PAIR COMMUNICATION CABLE, JELLYFILLED (UNDERGROUND)
837001	3	EA	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
860284	32	EA	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
861105	550	LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
861107	700	L F	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
861108	1725	LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
871202	1	EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT

C. EQUIPMENT TO BE REMOVED.

SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET, ALL OTHER EXISTING SIGNAL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE SIGNAL.

<u>CONTACTS</u>

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Mr. Tom Fountain Assistant District Engineer – Maintenance Phone: (301) 513-7304

Mr. Victor Grafton Utility Engineer Phone: (301) 513-7350

Mr. Avijit Maji Chief, Traffic Operations Division Phone: (410) 787-7630

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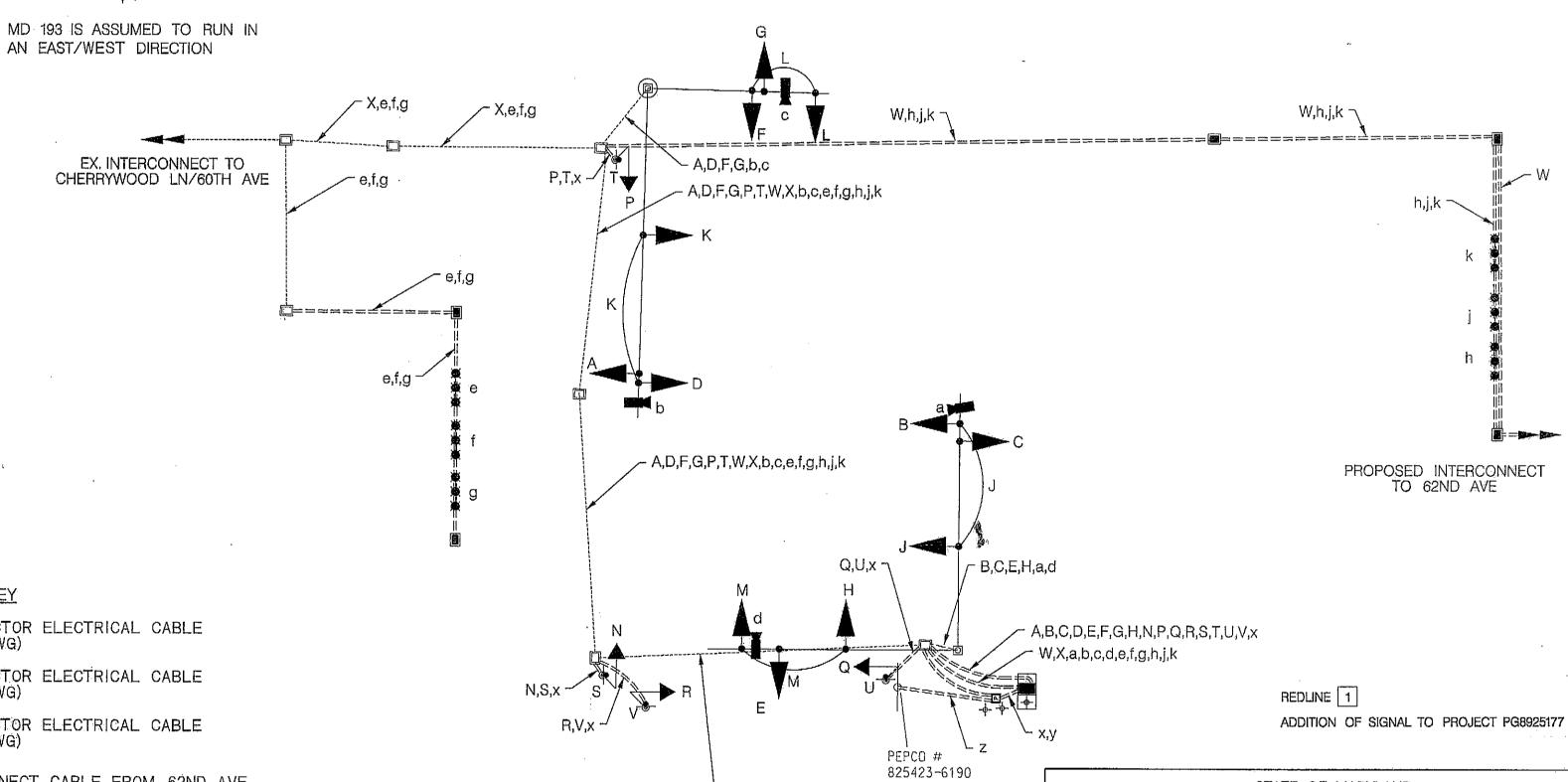
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PHASE CHART

PHASE 1 AND 5	← G/R	← G/R	R	∢ -G/R	∢ -G/R	R	.Ŕ	R	R	R	R	R	DW	DW	DW	DW	\ \frac{1}{\rangle}
AND 5 CHANGE TO 1 AND 6, 2 AND 5, OR 2 AND 6											\\ \frac{1}{\sqrt{1}}						
PHASE 1 AND 6	∢ -G/G	4 G/G	G	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	
1 AND 6 CHANGE	4 -Y/G	← Y/G	G	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	
PHASE 2 AND 5	R	R	R	← G/G	∢ -G/G	G	R	R	R	R	R	R	DW	DW	DW	DW	
5 CHANGE	R	R	R	← Y/G	4 -Y/G	G	R	R	R	R	R	R	DW	DW	DW	DW	1, \$_{-}\$
PHASE 2 AND 6	G	G	G	G	G	G	Ŕ	R	R	R	R	R	DW	DW	WK	WK	1.
PED CLEARANCE	G	G	G	G	G	G	R	R.	R	R	R	R	DW	DW	FL/DW	FL/DW	
2 AND 6 CHANGE	Y	Υ	Υ	Υ	Υ	Υ	R	R	R	R	R	R	DW	DW	DW	DW	• •
PHASE 4 AND 8	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW	ΙΑ
4 AND 8 CHANGE	R	R	R	R	R	R	Υ	Υ	Υ	Υ	Y	Υ	DW	DW	DW	DW	¹
PHASE 4 ALT. AND 8	R	R	R	R	R	R	G	G	G	G	G	G	WK	WK	DW	DW	01 1
PED CLEARANCE	R	R	R	R	R	R	G	G	G	G	G	G	FL/DW	FL/DW	DW	DW	
4 ALT. AND 8 CHANGE	R	R	R	R	R	R	Υ	Y	Υ	Υ	Υ	Υ	DW	DW	DW	DW	- - -
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	+ A

WIRING DIAGRAM



WIRING KEY

A,B,C,D 1 7 CONDUCTOR ELECTRICAL CABLE

E,F,G,H (NO. 14 AWG)

J,K,L,M } 5 CONDUCTOR ELECTRICAL CABLE N,P,Q,R } (NO. 14 AWG)

S,T,U,V } 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)

W } INTERCONNECT CABLE FROM 62ND AVE

INTERCONNECT CABLE FROM CHERRYWOOD/60TH AVE

a,b,c,d } VIDEO CAMERA CABLE

e,f,g h,j,k } NON-INVASIVE CABLE

STRANDED BARE COPPER GROUND WIRE × } (NO. 6 AWG)

y } 3 WIRE, 1-CONDUCTOR ELECTRICAL CABLE (NO. 8 AWG-THHN/THWN)

z } 3 WIRE, 1-CONDUCTOR ELECTRICAL CABLE (NO. 2 AWG-THHN/THWN)

+ } GROUND ROD

 $^{\clip}$ A,D,F,G,N,P,R,S,T,V,W,X,b,c,e,f,g,h,j,k

THE CONTRACTOR WILL "WORK WITH" PEPCO ON THE INSTALLATION OF THE 3 WIRES, 1 CONDUCTOR ELECTRICAL CABLE (NO. 2 AWG/THHN). IT HAS BEEN ASSUMED THAT DURING THE "WORK WITH" ADDITIONAL CABLE WILL BE COILED AND ATTACHED (TO THE WOOD POLE) TO PEPCO STANDARDS.

STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF TRAFFIC & SAFETY TRAFFIC ENGINEERING DESIGN DIVISION MD 193 (GREENBELT RD) AND CUNNINGHAM DR GREENBELT, MD

GENERAL INFORMATION PLAN SHEET

SCALE NONE	ADVERTISED DATE	09/2012 C	ONTRACT NO. PG8925177				
DESIGNED BY	CW	_	PRINCE GEORGE'S 16019305:31				
CHECKED BY	RM Mr	TIMS NO.	L274 _				
TS NO. 3613C	DRAWING GN-1	OF 1	SHEET NO. 8 OF 26				

BRUDIS & ASSOCIATES, INC Consulting Engineers 9240 Rumsey Road; Sulte C Columbia, Maryland 21045 Phone 410-884-3607 www.brudls.com

PLOTTED: Monday, November 12, 2012 AT 03:05 PM FILE: P:\09-002 TEDD\Task 94 MD 193 Rhode Island Ave to Southway\Drawings\CADD\Working\MD193@Cunningham\pGN-P001_MD193@Cunningham.dgn